

10/620559

=> d his

(FILE 'HOME' ENTERED AT 14:13:23 ON 26 JAN 2004)

FILE 'REGISTRY' ENTERED AT 14:13:33 ON 26 JAN 2004

L1 STRUCTURE UPLOADED
L2 5 S L1
L3 85 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 14:14:35 ON 26 JAN 2004

L4 6 S L3

FILE 'BEILSTEIN' ENTERED AT 14:15:47 ON 26 JAN 2004

L5 0 S L1
L6 0 S L1 SSS FULL

FILE 'MARPAT' ENTERED AT 14:16:20 ON 26 JAN 2004

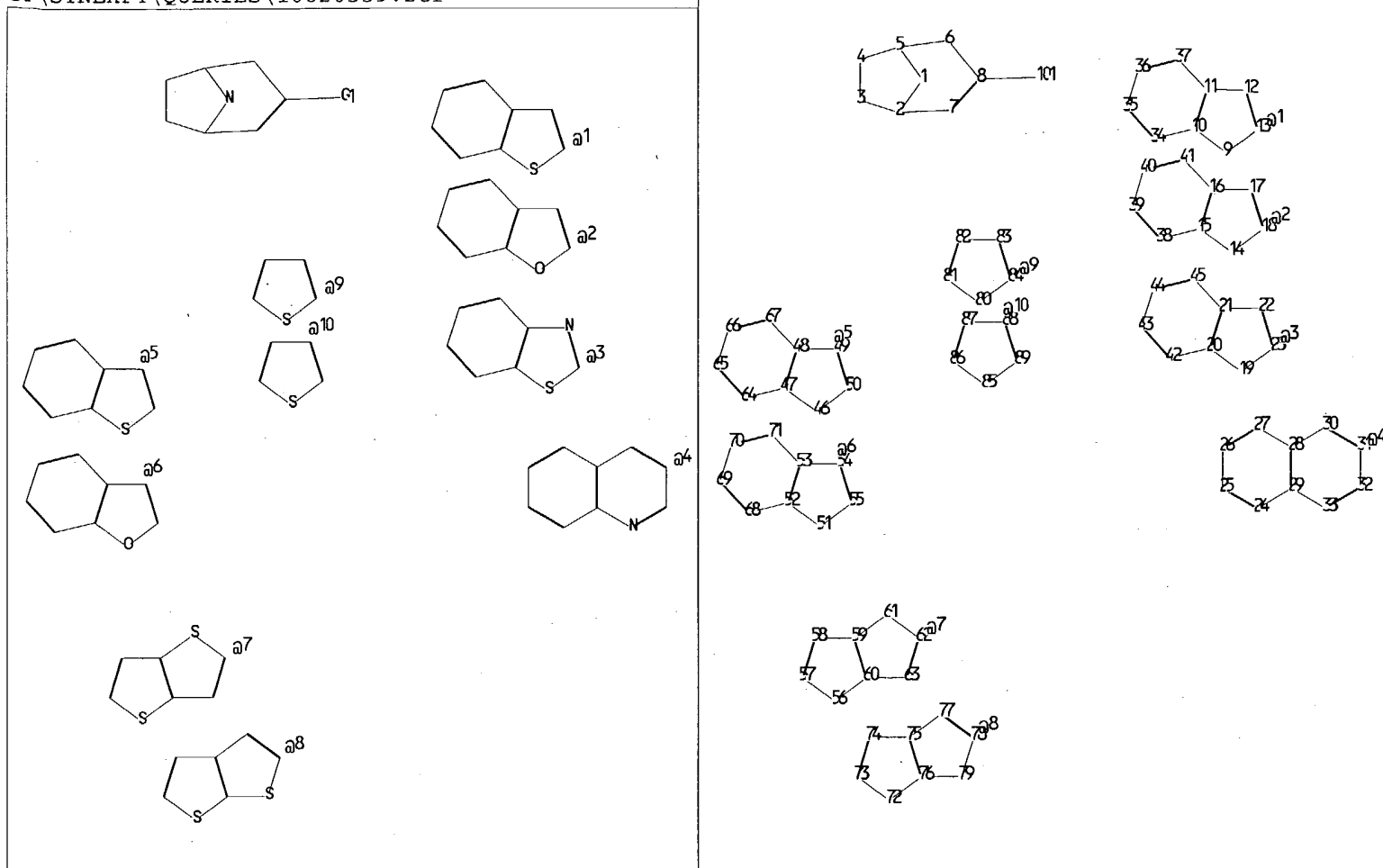
L7 0 S L3
L8 14 S L3 SSS FULL

FILE 'CAPLUS' ENTERED AT 14:16:57 ON 26 JAN 2004

L9 14 S L8

=> s l9 not l4

L10 8 L9 NOT L4



chain nodes :

101

ring nodes :

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | | | | | | | | | | | |

chain bonds :

8-101

ring bonds :

| | | | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1-2 | 1-5 | 2-3 | 2-7 | 3-4 | 4-5 | 5-6 | 6-8 | 7-8 | 9-10 | 9-13 | 10-11 | 10-34 | 11-12 | 11-37 | 12-13 |
| 14-15 | 14-18 | 15-16 | 15-38 | 16-17 | 16-41 | 17-18 | 19-20 | 19-23 | 20-21 | 20-42 | 21-22 | 21-45 | 22-23 | 24-25 | 24-29 |
| 25-26 | 26-27 | 27-28 | 28-29 | 28-30 | 29-33 | 30-31 | 31-32 | 32-33 | 34-35 | 35-36 | 36-37 | 38-39 | 39-40 | 40-41 | 42-43 |
| 43-44 | 44-45 | 46-47 | 46-50 | 47-48 | 47-64 | 48-49 | 48-67 | 49-50 | 51-52 | 51-55 | 52-53 | 52-68 | 53-54 | 53-71 | 54-55 |
| 56-57 | 56-60 | 57-58 | 58-59 | 59-60 | 59-61 | 60-63 | 61-62 | 62-63 | 64-65 | 65-66 | 66-67 | 68-69 | 69-70 | 70-71 | 72-73 |
| 72-76 | 73-74 | 74-75 | 75-76 | 75-77 | 76-79 | 77-78 | 78-79 | 80-81 | 80-84 | 81-82 | 82-83 | 83-84 | 85-86 | 85-89 | 86-87 |
| 87-88 | 88-89 | | | | | | | | | | | | | | |

exact/norm bonds :

| | | | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1-2 | 1-5 | 2-3 | 2-7 | 3-4 | 4-5 | 5-6 | 6-8 | 7-8 | 8-101 | 9-10 | 9-13 | 11-12 | 12-13 | 14-15 | 14-18 |
| 16-17 | 17-18 | 19-20 | 19-23 | 21-22 | 22-23 | 46-47 | 46-50 | 48-49 | 49-50 | 51-52 | 51-55 | 53-54 | 54-55 | 56-57 | 56-60 |
| 57-58 | 58-59 | 59-60 | 59-61 | 60-63 | 61-62 | 62-63 | 72-73 | 72-76 | 73-74 | 74-75 | 75-76 | 75-77 | 76-79 | 77-78 | 78-79 |
| 80-81 | 80-84 | 81-82 | 82-83 | 83-84 | 85-86 | 85-89 | 86-87 | 87-88 | 88-89 | | | | | | |

normalized bonds :

| | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 10-11 | 10-34 | 11-37 | 15-16 | 15-38 | 16-41 | 20-21 | 20-42 | 21-45 | 24-25 | 24-29 | 25-26 | 26-27 |
| 27-28 | 28-29 | 28-30 | 29-33 | 30-31 | 31-32 | 32-33 | 34-35 | 35-36 | 36-37 | 38-39 | 39-40 | 40-41 |
| 42-43 | 43-44 | 44-45 | 47-48 | 47-64 | 48-67 | 52-53 | 52-68 | 53-71 | 64-65 | 65-66 | 66-67 | 68-69 |
| 69-70 | 70-71 | | | | | | | | | | | |

G1: [*1], [*2], [*3], [*4], [*5], [*6], [*7], [*8], [*9], [*10]

Match level :

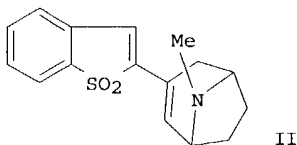
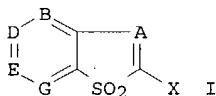
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| 22:Atom | 23:Atom | 24:Atom | 25:Atom | 26:Atom | 27:Atom | 28:Atom | 29:Atom | 30:Atom | 31:Atom | |
| 32:Atom | 33:Atom | 34:Atom | 35:Atom | 36:Atom | 37:Atom | 38:Atom | 39:Atom | 40:Atom | 41:Atom | |
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| 52:Atom | 53:Atom | 54:Atom | 55:Atom | 56:Atom | 57:Atom | 58:Atom | 59:Atom | 60:Atom | 61:Atom | |
| 62:Atom | 63:Atom | 64:Atom | 65:Atom | 66:Atom | 67:Atom | 68:Atom | 69:Atom | 70:Atom | 71:Atom | |
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| 82:Atom | 83:Atom | 84:Atom | 85:Atom | 86:Atom | 87:Atom | 88:Atom | 89:Atom | 101:CLASS | | |

10/620559

=> d 1-6 bib abs hitstr

L4 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:42270 CAPLUS
DN 138:89958
TI Preparation of benzothiophene and benzothiazole compounds as cholinergic
and monoamine receptor modulators
IN Peters, Dan; Olsen, Gunnar M.; Nielsen, Elsebet Ostergaard; Ahring, Philip
K.; Jorgensen, Tino Dyhring
PA Neurosearch A/S, Den.
SO PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

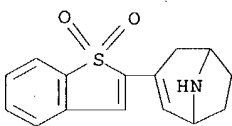
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|--|----------|-----------------|----------|
| PI | WO 2003004493 | A1 | 20030116 | WO 2002-DK460 | 20020702 |
| | WO 2003004493 | C1 | 20030410 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| PRAI | DK 2001-1064 | A | 20010706 | | |
| OS | MARPAT 138:89958 | | | | |
| GI | | | | | |



AB Novel compds. of formula I [A, B, D, E, G = C, N; X = heterocycle] are
prepd. that are found to be cholinergic ligands at the nicotinic
acetylcholine receptors and modulators of the monoamine receptors and
transporters. Due to their pharmacol. profile the compds. of the
invention may be useful for the treatment of diseases or disorders as
diverse as those related to the cholinergic system of the central nervous
system (CNS), the peripheral nervous system (PNS), diseases or disorders
related to smooth muscle contraction, endocrine diseases or disorders,
diseases or disorders related to neuro-degeneration, diseases or disorders
related to inflammation, pain, and withdrawal symptoms caused by the
termination of abuse of chem. substances. Thus, was prepd. and inhibited
3H-.alpha.-bungarotoxine binding in rat brain with IC50 of 0.018 .mu.M.

IT 484650-60-4P
RL: DGN (Diagnostic use); PAC (Pharmacological activity); RCT (Reactant);
SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of benzothiophene and benzothiazole compds. as cholinergic and
monoamine receptor modulators)

RN 484650-60-4 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxidobenzo[b]thien-2-yl)- (9CI)
(CA INDEX NAME)



IT 484650-61-5P 484650-62-6P 484650-63-7P
484650-64-8P 484650-65-9P 484651-14-1P

10/620559

484651-19-6P 484651-20-9P 484651-21-0P

484651-22-1P

RL: DGN (Diagnostic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of benzothiophene and benzothiazole compds. as cholinergic and monoamine receptor modulators)

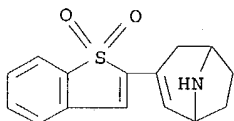
RN 484650-61-5 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxidobenzo[b]thien-2-yl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 484650-60-4

CMF C15 H15 N O2 S

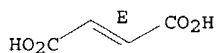


CM 2

CRN 110-17-8

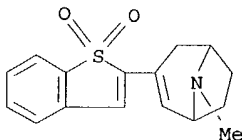
CMF C4 H4 O4

Double bond geometry as shown.



RN 484650-62-6 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxidobenzo[b]thien-2-yl)-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)



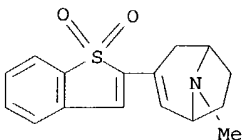
RN 484650-63-7 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxidobenzo[b]thien-2-yl)-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 484650-62-6

CMF C16 H17 N O2 S

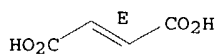


CM 2

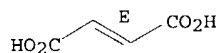
CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

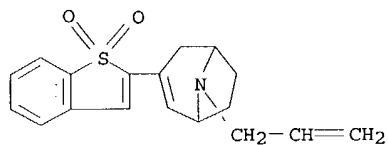


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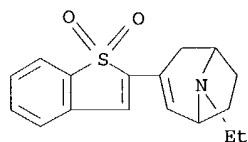
RN 484650-64-8 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxidobenzo[b]thien-2-yl)-8-(2-propenyl)- (9CI) (CA INDEX NAME)



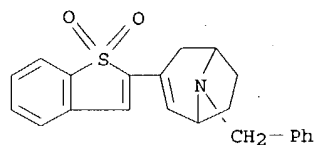
RN 484650-65-9 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxidobenzo[b]thien-2-yl)-8-ethyl- (9CI) (CA INDEX NAME)



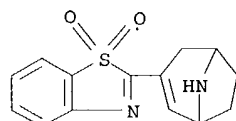
RN 484651-14-1 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxidobenzo[b]thien-2-yl)-8-(phenylmethyl)- (9CI) (CA INDEX NAME)



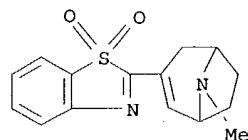
RN 484651-19-6 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxido-2-benzothiazolyl)- (9CI) (CA INDEX NAME)



RN 484651-20-9 CAPLUS

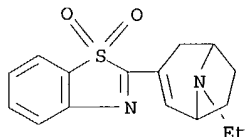
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxido-2-benzothiazolyl)-8-methyl- (9CI) (CA INDEX NAME)



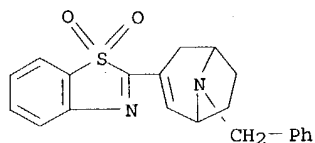
RN 484651-21-0 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxido-2-benzothiazolyl)-8-ethyl- (9CI) (CA INDEX NAME)

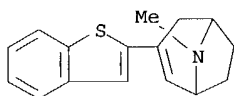
10/620559



RN 484651-22-1 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(1,1-dioxido-2-benzothiazolyl)-8-(phenylmethyl)- (9CI) (CA INDEX NAME)

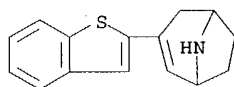


IT 216853-40-6P 484650-70-6P 484650-71-7P
484650-72-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. of benzothiophene and benzothiazole compds. as cholinergic and
monoamine receptor modulators)
RN 216853-40-6 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-benzo[b]thien-2-yl-8-methyl-,
hydrochloride (9CI) (CA INDEX NAME)



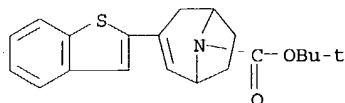
● HCl

RN 484650-70-6 CAPLUS
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(CA INDEX NAME)

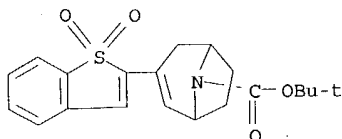


● HCl

RN 484650-71-7 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-carboxylic acid, 3-benzo[b]thien-2-yl-,
1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



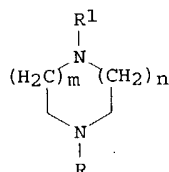
RN 484650-72-8 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-carboxylic acid, 3-(1,1-dioxido-2-benzothiazolyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



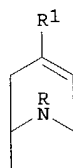
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:293427 CAPLUS
DN 136:325574
TI Preparation of piperazine, homopiperazine, and 8-azabicyclo[3.2.1]oct-2-ene, and 3,9-diazabicyclo[4.2.1]nonane derivatives for treatment of affective disorders by the combined action of a nicotinic receptor agonist and a monoaminergic substance
IN Olsen, Gunnar M.; Peters, Dan; Nielsen, Elsebet Ostergaard
PA Neurosearch A/S, Den.
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|--|-----------------|----------|
| PI | WO 2002030405 | A2 | 20020418 | WO 2001-DK661 | 20011010 |
| | WO 2002030405 | A3 | 20020906 | | |
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| | RW: | | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | |
| | AU 2001095436 | A5 | 20020422 | AU 2001-95436 | 20011010 |
| | EP 1358177 | A2 | 20031105 | EP 2001-976043 | 20011010 |
| | R: | | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | |
| PRAI | DK 2000-1535 | A | 20001013 | | |
| | US 2000-242146P | P | 20001023 | | |
| | WO 2001-DK661 | W | 20011010 | | |
| OS | MARPAT 136:325574 | | | | |
| GI | | | | | |



I



II

AB This invention relates to use of the combined action of a nicotinic acetylcholine receptor agonist and a monoamine reuptake inhibitor for the treatment of affective disorders including depression, anxiety, obsessive compulsive disorder (OCD), panic disorder, or pain, as well as to pharmaceutical compns. comprising these substances and chem. substances for use according to the invention. The chem. substances are represented by piperazine and homopiperazine derivs. (I; n = 1,2,3; m = 0,1,2; R = H, alkyl, cycloalkyl, cycloalkylalkyl, alkoxy, acyl, benzyl; R1 = 5-bromo-3-pyridyl, 6-chloro-3-pyridyl, 6-bromo-5-methoxy-3-pyridyl, 6-bromo-3-pyridyl, 6-bromo-5-chloro-3-pyridyl, 5,6-dibromo-3-pyridyl, etc.) and 8-azabicyclo[3.2.1]oct-2-ene derivs. (II; R = H, alkyl, alkenyl, cycloalkyl, cyanoalkyl, Ph, naphthyl, benzyl; R1 = CHO, alkanoyl, cycloalkanoyl, carbamoyl, furanyl, thienyl, pyrrolyl, oxazolyl, isoxazolyl, imidazolyl, pyridyl, pyrimidinyl, thiazolyl, naphthyl, indolyl, benzofuranyl, etc.). Thus, 1-(6-Chloro-3-pyridyl)piperazine

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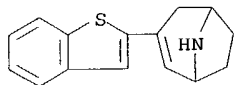
(III) (0.3, 1, 3, 10 mg/kg s.c.) was tested in the mouse forced swim test which is considered predictive of a potential antidepressant pharmacol. effect and it did not affect forced swimming with a 30 min pretreatment. However, the combination of venlafaxine and III (1+3; 3+3; 10+1; 10+3 mg/kg s.c.) significantly increased the forced swimming in NMRI mice.

IT 412347-70-7P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(intermediate; prepn. of piperazine, homopiperazine, azabicyclo[3.2.1]octene, and diazabicyclo[4.2.1]nonane derivs. for treatment of affective disorders)

RN 412347-70-7 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-benzo[b]thien-2-yl- (9CI) (CA INDEX NAME)



IT 273403-42-2P 412347-74-1P 412347-75-2P

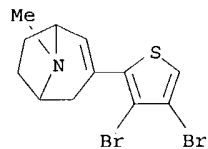
412347-78-5P 412347-80-9P 412347-82-1P

412347-83-2P 412347-86-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of piperazine, homopiperazine, azabicyclo[3.2.1]octene, and diazabicyclo[4.2.1]nonane derivs. for treatment of affective disorders)

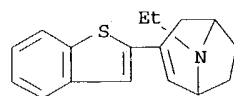
RN 273403-42-2 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3,4-dibromo-2-thienyl)-8-methyl- (9CI)
(CA INDEX NAME)



RN 412347-74-1 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-benzo[b]thien-2-yl-8-ethyl- (9CI) (CA INDEX NAME)



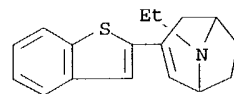
RN 412347-75-2 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-benzo[b]thien-2-yl-8-ethyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 412347-74-1

CMF C17 H19 N S



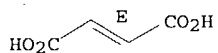
CM 2

CRN 110-17-8

CMF C4 H4 O4

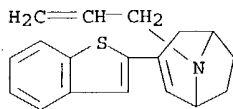
Double bond geometry as shown.

10/620559



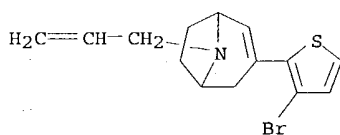
RN 412347-78-5 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-benzo[b]thien-2-yl-8-(2-propenyl)- (9CI)
(CA INDEX NAME)



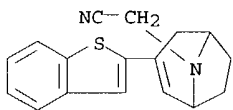
RN 412347-80-9 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-thienyl)-8-(2-propenyl)- (9CI)
(CA INDEX NAME)



RN 412347-82-1 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene-8-acetonitrile, 3-benzo[b]thien-2-yl- (9CI)
(CA INDEX NAME)



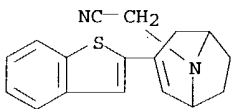
RN 412347-83-2 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene-8-acetonitrile, 3-benzo[b]thien-2-yl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 412347-82-1

CMF C17 H16 N2 S

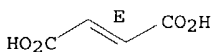


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 412347-86-5 CAPLUS

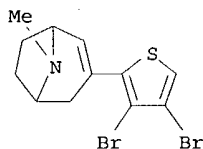
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3,4-dibromo-2-thienyl)-8-methyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 273403-42-2

10/620559

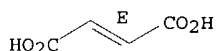
CMF C12 H13 Br2 N S



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

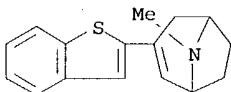


IT 216853-33-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; prepn. of piperazine, homopiperazine,
azabicyclo[3.2.1]octene, and diazabicyclo[4.2.1]nonane derivs. for
treatment of affective disorders)

RN 216853-33-7 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-benzo[b]thien-2-yl-8-methyl- (9CI) (CA
INDEX NAME)



L4 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:472712 CAPLUS

DN 135:76800

TI Azabicyclo[3.2.1]octane derivatives with activity as serotonin reuptake
inhibitors and 5-HT1A antagonists, and their use as antidepressants.

IN He, John Xiaogiang; Honigschmidt, Nicholas Allan; Kohn, Todd Jonathan;
Rocco, Vincent Patrick; Spinazze, Patrick Gianpietro; Takeuchi, Kumiko

PA Eli Lilly and Co., USA

SO PCT Int. Appl., 97 pp.

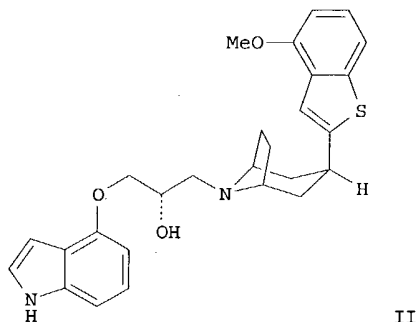
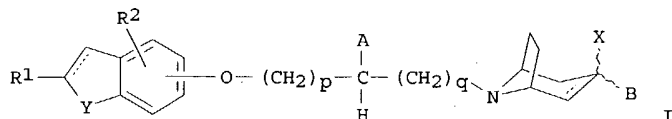
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|--|----------|-----------------|----------|
| PI | WO 2001046187 | A1 | 20010628 | WO 2000-US32431 | 20001206 |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| | EP 1242419 | A1 | 20020925 | EP 2000-982253 | 20001206 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| PRAI | US 1999-172610P | P | 19991220 | | |
| | WO 2000-US32431 | W | 20001206 | | |
| OS | MARPAT 135:76800 | | | | |
| GI | | | | | |



AB The invention provides compds. of formula I [A = H, OH, alkoxy; B = (un)substituted benzothienyl, benzofuranyl, indolyl, benzothiazolyl, benzimidazolyl, benzoxazolyl, quinoliny, phthalazinyl, naphthalenyl, or benzo[h]quinoliny; X = H, OH, alkoxy, or is absent; Y = CH₂, NH, or S; R₁ = H, F, alkyl, CONH₂ or (di)alkyl derivs., cyano; R₂ = H, F, Cl, Br, iodo, OH, alkyl, or alkoxy; p = 0-4; q = 0-3] and their pharmaceutically acceptable salts. The compds. are potent serotonin reuptake inhibitors and antagonists of 5-HT_{1A} receptors (no data). As such, they are expected to be useful for treating depression, anxiety, and alleviating the symptoms caused by withdrawal or partial withdrawal from the use of tobacco or of nicotine. Fourteen synthetic examples and several precursor preps. are given. For instance, title compd. II was prepd. in 87% yield by reaction of endo-3-(4-methoxybenzo[b]thiophen-2-yl)-8-azabicyclo[3.2.1]octane (prepn. given) with (S)-4-(oxiranylmethoxy)indole in refluxing MeOH.

IT 346465-39-2P 346465-40-5P 346465-42-7P
346465-43-8P 346465-46-1P 346465-47-2P
346465-48-3P 346465-49-4P

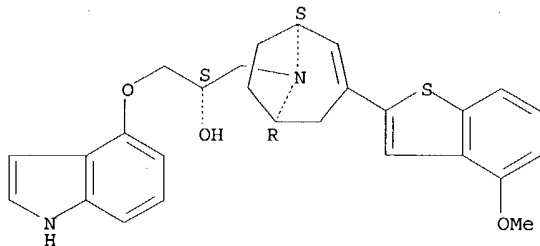
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. of azabicyclooctane derivs. as serotonin reuptake inhibitors and 5-HT_{1A} antagonists for use as antidepressants)

RN 346465-39-2 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, .alpha.-[(1H-indol-4-yloxy)methyl]-3-(4-methoxybenzo[b]thien-2-yl)-, (.alpha.S,1S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 346465-40-5 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, .alpha.-[(1H-indol-4-yloxy)methyl]-3-(4-methoxybenzo[b]thien-2-yl)-, (.alpha.S,1S,5R)-, ethanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

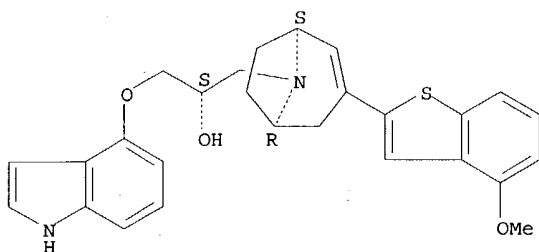
CM 1

CRN 346465-39-2

CMF C27 H28 N2 O3 S

10/620559

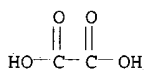
Absolute stereochemistry.



CM 2

CRN 144-62-7

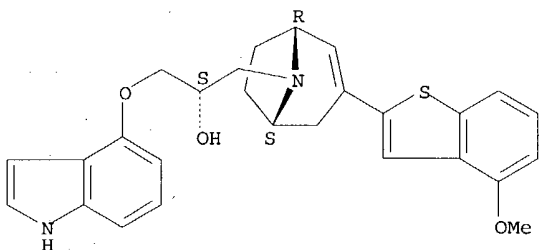
CMF C2 H2 O4



RN 346465-42-7 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, .alpha.-[(1H-indol-4-yloxy)methyl]-3-(4-methoxybenzo[b]thien-2-yl)-, (.alpha.S,1R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 346465-43-8 CAPLUS

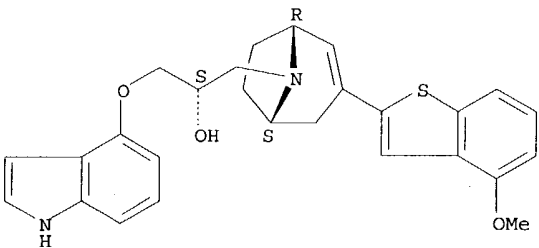
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, .alpha.-[(1H-indol-4-yloxy)methyl]-3-(4-methoxybenzo[b]thien-2-yl)-, (.alpha.S,1R,5S)-, ethanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 346465-42-7

CMF C27 H28 N2 O3 S

Absolute stereochemistry.

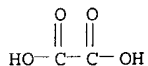


CM 2

CRN 144-62-7

CMF C2 H2 O4

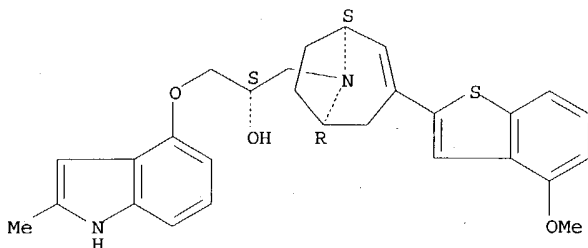
10/620559



RN 346465-46-1 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, 3-(4-methoxybenzo[b]thien-2-yl)-
.alpha.-[[[(2-methyl-1H-indol-4-yl)oxy]methyl]-, (.alpha.S,1S,5R)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



RN 346465-47-2 CAPLUS

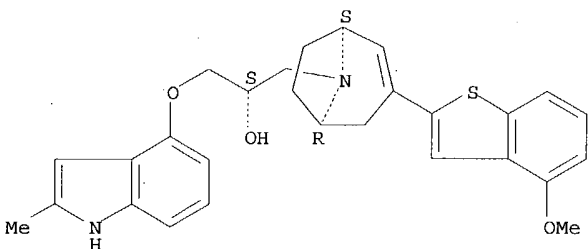
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, 3-(4-methoxybenzo[b]thien-2-yl)-
.alpha.-[[[(2-methyl-1H-indol-4-yl)oxy]methyl]-, (.alpha.S,1S,5R)-,
ethanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 346465-46-1

CMF C28 H30 N2 O3 S

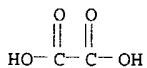
Absolute stereochemistry.



CM 2

CRN 144-62-7

CMF C2 H2 O4

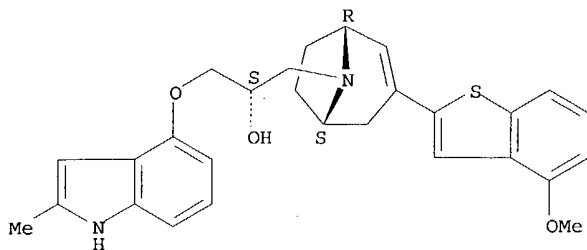


RN 346465-48-3 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, 3-(4-methoxybenzo[b]thien-2-yl)-
.alpha.-[[[(2-methyl-1H-indol-4-yl)oxy]methyl]-, (.alpha.S,1R,5S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

10/620559

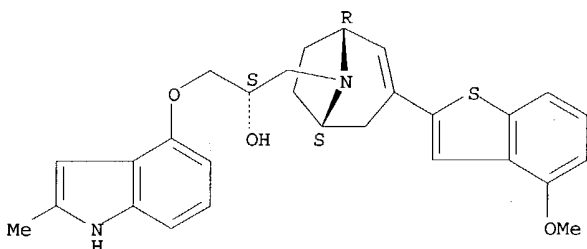


RN 346465-49-4 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, 3-(4-methoxybenzo[b]thien-2-yl)-
.alpha.-[[[(2-methyl-1H-indol-4-yl)oxy]methyl]-, (.alpha.S,1R,5S)-,
ethanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

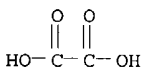
CRN 346465-48-3
CMF C28 H30 N2 O3 S

Absolute stereochemistry.

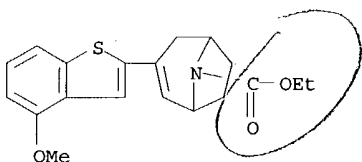


CM 2

CRN 144-62-7
CMF C2 H2 O4

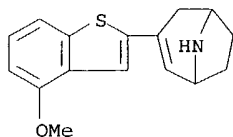


IT 345995-28-0P 345995-30-4P 345995-31-5P
346465-83-6P 346465-85-8P 346465-87-0P
346465-90-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; prepn. of azabicyclooctane derivs. as serotonin reuptake
inhibitors and 5-HT1A antagonists for use as antidepressants)
RN 345995-28-0 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-carboxylic acid, 3-(4-methoxybenzo[b]thien-
2-yl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 345995-30-4 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(4-methoxybenzo[b]thien-2-yl)- (9CI) (CA
INDEX NAME)

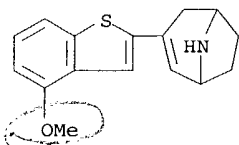
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RN 345995-31-5 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(4-methoxybenzo[b]thien-2-yl)-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

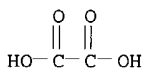
CM 1

CRN 345995-30-4
CMF C16 H17 N O S

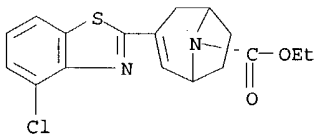


CM 2

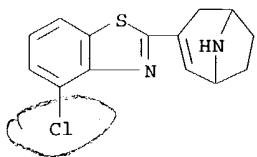
CRN 144-62-7
CMF C2 H2 O4



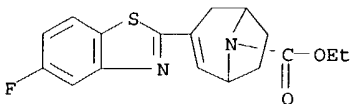
RN 346465-83-6 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-carboxylic acid, 3-(4-chloro-2-benzothiazolyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 346465-85-8 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(4-chloro-2-benzothiazolyl)- (9CI) (CA INDEX NAME)

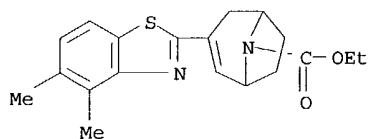


RN 346465-87-0 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-carboxylic acid, 3-(5-fluoro-2-benzothiazolyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 346465-90-5 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-carboxylic acid, 3-(4,5-dimethyl-2-

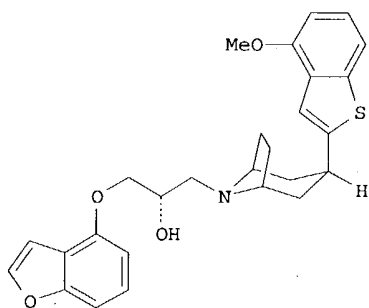
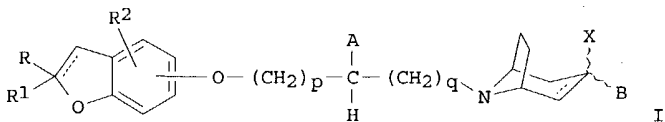
benzothiazolyl)-, ethyl ester (9CI) (CA INDEX NAME)



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:472711 CAPLUS
DN 135:76778
TI Benzofuran derivatives with activity as serotonin reuptake inhibitors and 5-HT1A antagonists, and their use as antidepressants.
IN He, John Xiaoliang; Honigschmidt, Nicholas Allan; Kohn, Todd Jonathan; Rocco, Vincent Patrick; Spinazze, Patrick Gianpietro; Takeuchi, Kumiko
PA Eli Lilly and Company, USA
SO PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2001046186 | A1 | 20010628 | WO 2000-US32425 | 20001206 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
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| US 2003130513 | A1 | 20030710 | US 2002-148768 | 20020909 |
| PRAI US 1999-172742P | P | 19991220 | | |
| WO 2000-US32425 | W | 20001206 | | |
| OS MARPAT 135:76778 | | | | |
| GI | | | | |



AB The invention provides compds. of formula I [A = H, OH, alkoxy; B =

(un)substituted benzothienyl, benzofuranyl, indolyl, benzothiazolyl, benzimidazolyl, benzoxazolyl, quinolinyl, phthalazinyl, naphthalenyl, or benzo[h]quinolinyl; X = H, OH, alkoxy, or is absent; R, R1 = H, F, alkyl, CONH2 or (di)alkyl derivs., cyano, or R1 is absent; R2 = H, F, Cl, Br, iodo, OH, alkyl, or alkoxy; p = 0-4; q = 0-3] and their pharmaceutically acceptable salts. The compds. are potent serotonin reuptake inhibitors and antagonists of 5-HT1A receptors (no data). As such, they are expected to be useful for treating depression, anxiety, and alleviating the symptoms caused by withdrawal or partial withdrawal from the use of tobacco or of nicotine. Three synthetic examples and several precursor prepn. are given. For instance, title compd. II (as the oxalate) was prepd. in 84% yield by reaction of endo-3-(4-methoxybenzo[b]thiophen-2-yl)-8-azabicyclo[3.2.1]octane (prepn. given) with (2S)-4-(glycidyloxy)benzofuran in refluxing MeOH.

IT 345995-17-7P 345995-18-8P 345995-19-9P

345995-20-2P

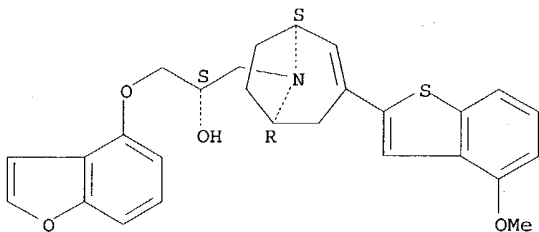
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. of benzofuran derivs. as serotonin reuptake inhibitors and 5-HT1A antagonists for use as antidepressants)

RN 345995-17-7 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, .alpha.-[(4-benzofuranyloxy)methyl]-3-(4-methoxybenzo[b]thien-2-yl)-, (.alpha.S,1S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 345995-18-8 CAPLUS

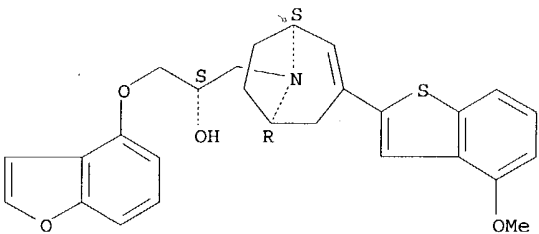
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, .alpha.-[(4-benzofuranyloxy)methyl]-3-(4-methoxybenzo[b]thien-2-yl)-, (.alpha.S,1S,5R)-, ethanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 345995-17-7

CMF C27 H27 N O4 S

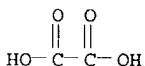
Absolute stereochemistry.



CM 2

CRN 144-62-7

CMF C2 H2 O4



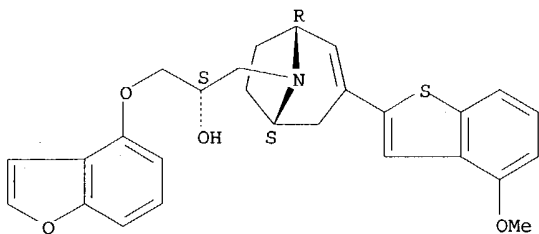
RN 345995-19-9 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, .alpha.-[(4-

10/620559

benzofuranyloxy)methyl]-3-(4-methoxybenzo[b]thien-2-yl)-,
(.alpha.S,1R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 345995-20-2 CAPLUS

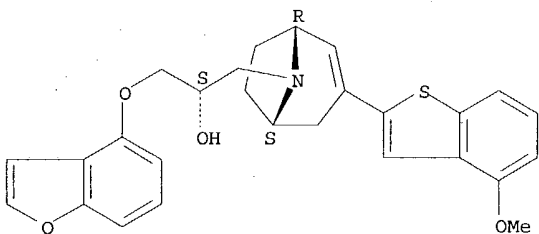
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-ethanol, .alpha.-[(4-benzofuranyloxy)methyl]-3-(4-methoxybenzo[b]thien-2-yl)-,
(.alpha.S,1R,5S)-, ethanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 345995-19-9

CMF C27 H27 N O4 S

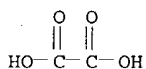
Absolute stereochemistry.



CM 2

CRN 144-62-7

CMF C2 H2 O4



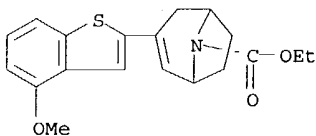
IT 345995-28-0P 345995-30-4P 345995-31-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(intermediate; prepn. of benzofuran derivs. as serotonin reuptake
inhibitors and 5-HT1A antagonists for use as antidepressants)

RN 345995-28-0 CAPLUS

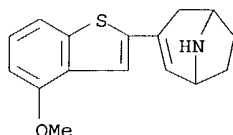
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-carboxylic acid, 3-(4-methoxybenzo[b]thien-2-yl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 345995-30-4 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(4-methoxybenzo[b]thien-2-yl)- (9CI) (CA INDEX NAME)

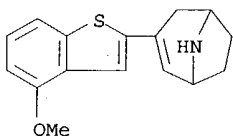
10/620559



RN 345995-31-5 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(4-methoxybenzo[b]thien-2-yl)-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

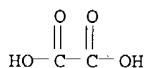
CM 1

CRN 345995-30-4
CMF C16 H17 N O S



CM 2

CRN 144-62-7
CMF C2 H2 O4



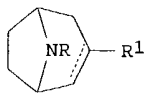
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:384193 CAPLUS
DN 133:30663
TI Preparation of 8-azabicyclo[3.2.1]oct-2-ene and -octane derivatives as cholinergic ligands at the nicotinic Acetyl Choline Receptors (nAChR)
IN Peters, Dan; Olsen, Gunnar M.; Nielsen, Simon Feldbaek; Nielsen, Elsebet Ostergaard
PA Neurosearch A/S, Den.
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------|--|----------|-----------------|----------|
| PI WO 2000032600 | A1 | 20000608 | WO 1999-DK661 | 19991126 |
| W: | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| CA 2342621 | AA | 20000608 | CA 1999-2342621 | 19991126 |
| EP 1133494 | A1 | 20010919 | EP 1999-973031 | 19991126 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | |
| JP 2002531456 | T2 | 20020924 | JP 2000-585242 | 19991126 |
| AU 761055 | B2 | 20030529 | AU 2000-13761 | 19991126 |
| NZ 510287 | A | 20030530 | NZ 1999-510287 | 19991126 |
| EP 1382605 | A2 | 20040121 | EP 2003-22707 | 19991126 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY | | | |
| US 2002035122 | A1 | 20020321 | US 2001-864367 | 20010525 |
| US 6680328 | B2 | 20040120 | | |

10/620559

PRAI DK 1998-1570 A 19981127
EP 1999-973031 A3 19991126
WO 1999-DK661 W 19991126
OS MARPAT 133:30663
GI



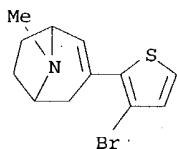
I

AB The title compds. [I; R = H, alkyl, alkenyl, etc.; R1 = COR2, (un)substituted mono- or polycyclic aryl, (un)substituted (un)satd. 5-6 membered heterocyclyl, etc.; R2 = H, alkyl, alkenyl, etc.] and their salts which are found to be cholinergic ligands at the nicotinic Acetyl Choline Receptors (no data) and may be useful for the treatment of diseases or disorders as diverse as those related to the cholinergic system of the central nervous system (CNS), diseases or disorders related to smooth muscle contraction, endocrine diseases or disorders, diseases or disorders related to neurodegeneration, diseases or disorders related to inflammation, pain, and withdrawal symptoms caused by the termination of abuse of chem. substances, were prepd. E.g., a 2-step synthesis of (.-.-)-8-azabicyclo[3.2.1]oct-2-ene I.fumarate [R = Me; R1 = 6-methoxy-2-naphthyl] was given. Compds. I may also be useful as radioligands for in vivo receptor imaging (neuroimaging).

IT 216853-59-7P 273402-98-5P 273403-04-6P
273403-05-7P 273403-08-0P 273403-09-1P
273403-41-1P 273403-42-2P 273403-43-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 8-azabicyclo[3.2.1]oct-2-ene and -octane derivs. as cholinergic ligands at the nicotinic Acetyl Choline Receptors (nAChR))

RN 216853-59-7 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-thienyl)-8-methyl- (9CI) (CA INDEX NAME)



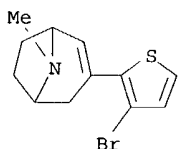
RN 273402-98-5 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-thienyl)-8-methyl-, (2E)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 216853-59-7

CMF C12 H14 Br N S



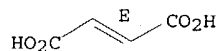
CM 2

CRN 110-17-8

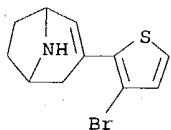
CMF C4 H4 O4

Double bond geometry as shown.

10/620559



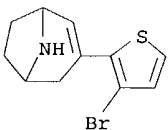
RN 273403-04-6 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-thienyl)- (9CI) (CA INDEX NAME)



RN 273403-05-7 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-thienyl)-, (2E)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

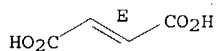
CRN 273403-04-6
CMF C11 H12 Br N S



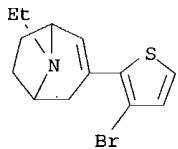
CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



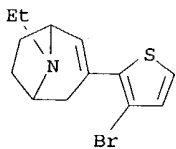
RN 273403-08-0 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-thienyl)-8-ethyl- (9CI) (CA INDEX NAME)



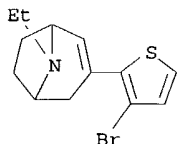
RN 273403-09-1 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-thienyl)-8-ethyl-, (2E)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 273403-08-0
CMF C13 H16 Br N S



10/620559

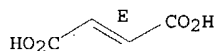


CM 2

CRN 110-17-8

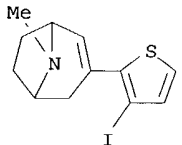
CMF C4 H4 O4

Double bond geometry as shown.



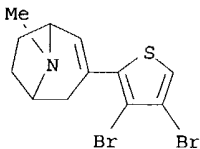
RN 273403-41-1 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-iodo-2-thienyl)-8-methyl- (9CI) (CA INDEX NAME)



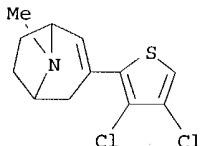
RN 273403-42-2 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3,4-dibromo-2-thienyl)-8-methyl- (9CI) (CA INDEX NAME)



RN 273403-43-3 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3,4-dichloro-2-thienyl)-8-methyl- (9CI) (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:795013 CAPLUS

DN 130:52335

TI 8-Azabicyclo[3.2.1]oct-2-ene and -octane derivatives as cholinergic ligands at nicotinic ACh receptors

IN Peters, Dan; Olsen, Gunnar M.; Nielsen, Simon Feldbaek; Nielsen, Elsebet Ostergaard

PA Neurosearch A/s, Den.

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

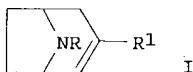
DT Patent

LA English

this app'n

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| PI WO 9854181 | A1 | 19981203 | WO 1998-DK225 | 19980529 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| ZA 9804639 | A | 19981211 | ZA 1998-4639 | 19980529 |
| AU 9874261 | A1 | 19981230 | AU 1998-74261 | 19980529 |
| AU 745964 | B2 | 20020411 | | |
| EP 984965 | A1 | 20000315 | EP 1998-921378 | 19980529 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| EE 9900529 | A | 20000615 | EE 1999-529 | 19980529 |
| EE 4057 | B1 | 20030616 | | |
| BR 9809697 | A | 20000711 | BR 1998-9697 | 19980529 |
| NZ 500642 | A | 20011130 | NZ 1998-500642 | 19980529 |
| JP 2002501514 | T2 | 20020115 | JP 1999-500130 | 19980529 |
| RU 2186780 | C2 | 20020810 | RU 1999-128075 | 19980529 |
| NO 9905850 | A | 19991129 | NO 1999-5850 | 19991129 |
| US 6645977 | B1 | 20031111 | US 1999-450637 | 19991129 |
| MX 9911081 | A | 20000831 | MX 1999-11081 | 19991130 |
| PRAI DK 1997-627 | A | 19970530 | | |
| DK 1997-1502 | A | 19971219 | | |
| DK 1998-408 | A | 19980324 | | |
| DK 1998-534 | A | 19980416 | | |
| WO 1998-DK225 | W | 19980529 | | |
| OS MARPAT 130:52335 | | | | |
| GI | | | | |



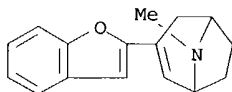
AB Title compds. I (R = H, alkyl, alkenyl, aryl, aralkyl, etc.; R1 = acyl, aryl, heteroaryl, etc.) or their satd. analogs were prepd. by several methods. Thus, endo-8-benzyl-3-hydroxy-3-(3-pyridyl)-8-azabicyclo[3.2.1]octane (II) was prepd. in 34% yield from 8-benzyl-8-azabicyclo[3.2.1]octan-3-one and 3-bromopyridine, and II was then converted to I (R = benzyl, R1 = 3-pyridyl) in 78% yield. The latter was converted to the fumarate salt. The affinity of the products for nicotinic ACh receptors was examd. in tests of 3H-cytisine, 3H-epibatidin, and 3H-.alpha.-bungarotoxin binding.

IT 216853-31-5P 216853-54-2P 216853-60-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (8-azabicyclo[3.2.1]oct-2-ene and -octane derivs. as cholinergic ligands at nicotinic ACh receptors)

RN 216853-31-5 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(2-benzofuranyl)-8-methyl- (9CI) (CA INDEX NAME)



RN 216853-54-2 CAPLUS

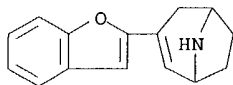
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(2-benzofuranyl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-53-1

CMF C15 H15 N O

10/620559

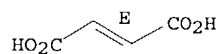


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



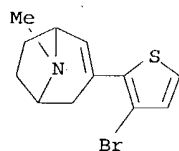
RN 216853-60-0 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-thienyl)-8-methyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-59-7

CMF C12 H14 Br N S

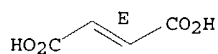


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



IT 216853-09-7P 216853-11-1P 216853-32-6P

216853-33-7P 216853-40-6P 216853-58-6P

216853-59-7P 216853-62-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation)

(8-azabicyclo[3.2.1]oct-2-ene and -octane derivs. as cholinergic
ligands at nicotinic ACh receptors)

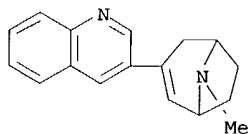
RN 216853-09-7 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 8-methyl-3-(3-quinoliny)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-08-6

CMF C17 H18 N2

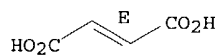


CM 2

10/620559

CRN 110-17-8
CMF C4 H4 O4

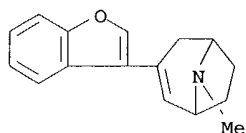
Double bond geometry as shown.



RN 216853-11-1 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-benzofuranyl)-8-methyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

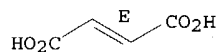
CRN 216853-10-0
CMF C16 H17 N O



CM 2

CRN 110-17-8
CMF C4 H4 O4

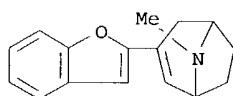
Double bond geometry as shown.



RN 216853-32-6 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(2-benzofuranyl)-8-methyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

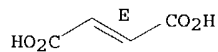
CRN 216853-31-5
CMF C16 H17 N O



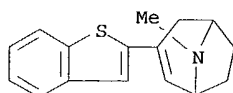
CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

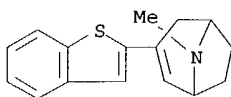


RN 216853-33-7 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-benzo[b]thien-2-yl-8-methyl- (9CI) (CA
INDEX NAME)



10/620559

RN 216853-40-6 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-benzo[b]thien-2-yl-8-methyl-,
hydrochloride (9CI) (CA INDEX NAME)

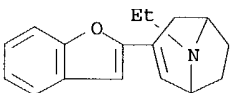


● HCl

RN 216853-58-6 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(2-benzofuranyl)-8-ethyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

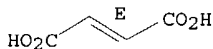
CRN 216853-57-5
CMF C17 H19 N O



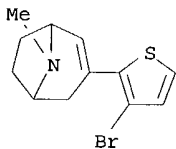
CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



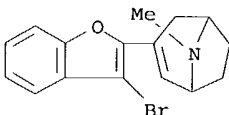
RN 216853-59-7 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-thienyl)-8-methyl- (9CI) (CA
INDEX NAME)



RN 216853-62-2 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromo-2-benzofuranyl)-8-methyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-61-1
CMF C16 H16 Br N O

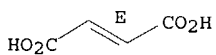


CM 2

10/620559

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



IT 216853-13-3P 216853-17-7P 216853-42-8P
216853-43-9P 216853-45-1P 216853-49-5P
216853-51-9P 216853-56-4P 216853-64-4P
216853-66-6P 216853-68-8P

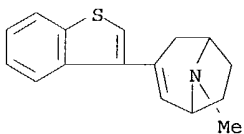
RL: SPN (Synthetic preparation); PREP (Preparation)
(8-azabicyclo[3.2.1]oct-2-ene and -octane derivs. as cholinergic
ligands at nicotinic ACh receptors)

RN 216853-13-3 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-benzo[b]thien-3-yl-8-methyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

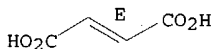
CRN 216853-12-2
CMF C16 H17 N S



CM 2

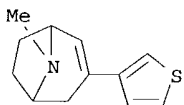
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 216853-17-7 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 8-methyl-3-(3-thienyl)-, hydrochloride (9CI)
(CA INDEX NAME)



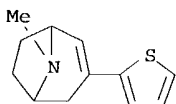
● HCl

RN 216853-42-8 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 8-methyl-3-(2-thienyl)-, (2E)-2-butenedioate
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-41-7
CMF C12 H15 N S



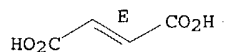
10/620559

CM 2

CRN 110-17-8

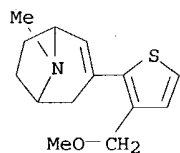
CMF C4 H4 O4

Double bond geometry as shown.



RN 216853-43-9 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-[3-(methoxymethyl)-2-thienyl]-8-methyl-
(9CI) (CA INDEX NAME)



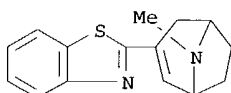
RN 216853-45-1 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(2-benzothiazolyl)-8-methyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-44-0

CMF C15 H16 N2 S

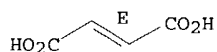


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



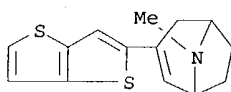
RN 216853-49-5 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 8-methyl-3-thieno[3,2-b]thien-2-yl-,
ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-48-4

CMF C14 H15 N S2

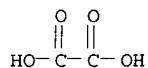


CM 2

CRN 144-62-7

CMF C2 H2 O4

10/620559



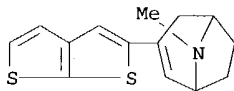
RN 216853-51-9 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 8-methyl-3-thieno[2,3-b]thien-2-yl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-50-8

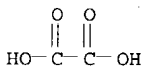
CMF C14 H15 N S2



CM 2

CRN 144-62-7

CMF C2 H2 O4



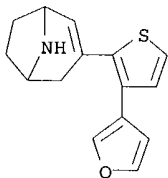
RN 216853-56-4 CAPLUS

CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-[3-(3-furanyl)-2-thienyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-55-3

CMF C15 H15 N O S

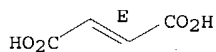


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 216853-64-4 CAPLUS

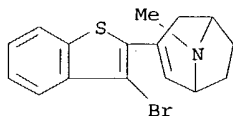
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-bromobenzo[b]thien-2-yl)-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-63-3

CMF C16 H16 Br N S

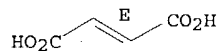
10/620559



CM 2

CRN 110-17-8
CMF C4 H4 O4

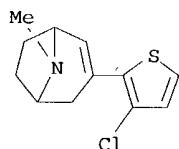
Double bond geometry as shown.



RN 216853-66-6 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-(3-chloro-2-thienyl)-8-methyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

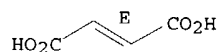
CRN 216853-65-5
CMF C12 H14 Cl N S



CM 2

CRN 110-17-8
CMF C4 H4 O4

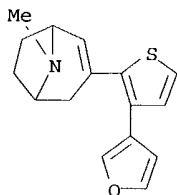
Double bond geometry as shown.



RN 216853-68-8 CAPLUS
CN 8-Azabicyclo[3.2.1]oct-2-ene, 3-[3-(3-furanyl)-2-thienyl]-8-methyl-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216853-67-7
CMF C16 H17 N O S

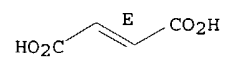


CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

10/620559



RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/620559

=> d 1-8 bib abs hitstr

L10 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:696895 CAPLUS

DN 139:214459

TI Preparation of 5-azolylmethyl oxazolidinones and their use as antibacterial agents

IN Gravestock, Michael Barry; Hales, Neil James; Reck, Folkert; Zhou, Fei; Fleming, Paul Robert; Carcanague, Daniel Robert

PA Astrazeneca AB, Swed.; Astrazeneca UK Limited

SO PCT Int. Appl., 126 pp.

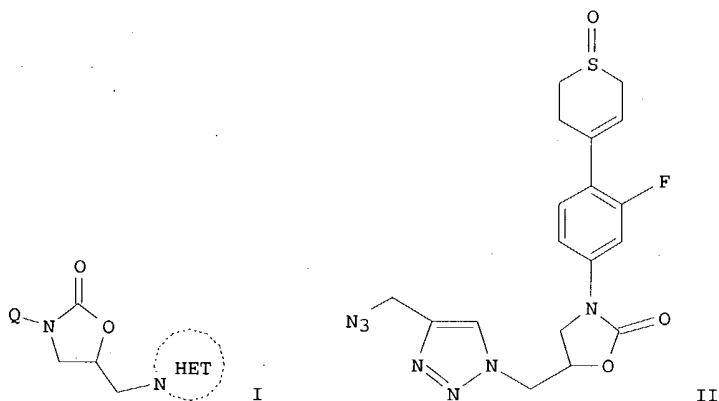
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|--|----------|-----------------|----------|
| PI | WO 2003072576 | A2 | 20030904 | WO 2003-GB791 | 20030225 |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| PRAI | US 2002-360688P | P | 20020228 | | |
| OS | MARPAT 139:214459 | | | | |
| GI | | | | | |



AB 3-Cyclyl-5-[(nitrogen-contg. 5-membered ring)methyl]oxazolidinones (shown as I; e.g. (5R)-3-[4-(1-oxo-3,6-dihydro-2H-thiopyran-4-yl)-3-fluorophenyl]-5-[(4-azidomethyl-1,2,3-triazol-1-yl)methyl]oxazolidin-2-one (shown as II); -N-HET is, for example, 3-R1-1,2,4-triazol-1-yl or 5-R1-2H-tetrazol-2-yl wherein R1 is, for example, halo or (1-4C)alkyl that is substituted by 1 substituent =, for example, OH, (1-4C)alkoxy, amino, cyano, azido; Q = for example, 3-R2-4-T-5-R3phenyl wherein R2 and R3 = H or fluoro; T = for example, 5,6-dihydro-2H-thiopyran-4-yl with 0-2 O atoms bonded to S) are useful as antibacterial agents; and processes for their manuf. and pharmaceutical compns. contg. them are described. Compds. I have a good spectrum of activity in vitro against std. organisms, which are used to screen for activity against pathogenic bacteria. For example, the min. inhibitory concns. of II against methicillin sensitive and quinolone sensitive Staphylococcus aureus and against methicillin resistant and quinolone resistant Staphylococcus aureus are 4 and 8 .mu.g/mL, resp. Compds. I showed a favorable decreased MAO-A potency compared with analogs from the known art with C-5 side chains such as acetamidomethyl or unsubstituted azolylmethyl or hydroxymethyl. They also showed favorable decreased MAO-A potency compared with analogs in which the HET group is unsubstituted. Sixty-one example preps. of I are included. For example, to prep. II, (5R)-3-[4-(1-oxo-3,6-dihydro-2H-

thiopyran-4-yl)-3-fluorophenyl]-5-[(4-hydroxymethyl-1,2,3-triazol-1-yl)methyl]oxazolidin-2-one (2.7 mmol) (prepn. given) was suspended in CH₂Cl₂ (10 mL), 1,8-diazabicyclo[5.4.0]undec-7-ene (4.7 mmol) was added and the reaction mixt. was cooled to -5.degree.; diphenylphosphoryl azide (3.25 mmol) was added dropwise and it was stirred for 18 h at room temp.; workup gave 1.02 g of II.

L10 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:696894 CAPLUS

DN 139:214458

TI Preparation of 3-cyclyl-5-[(nitrogen-containing 5-membered ring)methyl]oxazolidinones and their use as antibacterial agents

IN Gravestock, Michael Barry; Hales, Neil James; Reck, Folkert; Zhou, Fei; Fleming, Paul Robert; Carcanague, Daniel Robert; Girardot, Marc Michel

PA Astrazeneca AB, Swed.; Astrazeneca UK Limited

SO PCT Int. Appl., 140 pp.

CODEN: PIXXD2

DT Patent

LA English

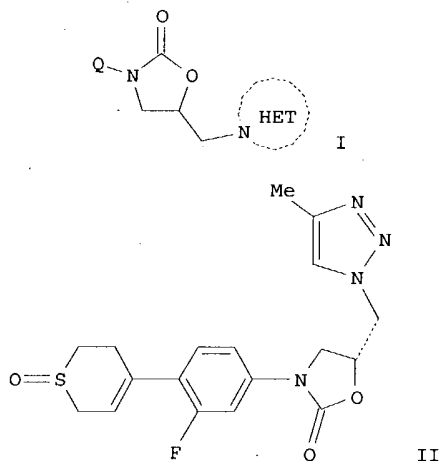
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|--|----------|-----------------|----------|
| PI | WO 2003072575 | A1 | 20030904 | WO 2003-GB785 | 20030225 |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | CH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |

PRAI US 2002-360957P P 20020228

OS MARPAT 139:214458

GI



AB 3-Cyclyl-5-[(nitrogen-contg. 5-membered ring)methyl]oxazolidinones (shown as I; e.g. (5R)-3-[4-(1-oxo-3,6-dihydro-2H-thiopyran-4-yl)-3-fluorophenyl]-5-[4-methyl-1,2,3-triazol-1-ylmethyl]oxazolidin-2-one (shown as II); -N-HET is, for example, 3-R1-1,2,4-triazol-1-yl or 5-R1-2H-tetrazol-2-yl wherein R1 is (1-4C)alkyl; Q = for example, 3-R2-4-T-5-R3phenyl wherein R2 and R3 = H or fluoro; T = for example, 5,6-dihydro-2H-thiopyran-4-yl with 0-2 O atoms bonded to S), or a pharmaceutically-acceptable salt, or an in-vivo-hydrolyzable ester thereof, are useful as antibacterial agents; and processes for their manuf. and pharmaceutical compns. contg. them are described. Compds. I have a good spectrum of activity in vitro against std. organisms, which are used to screen for activity against pathogenic bacteria. For example, the min. inhibitory concns. of II against methicillin sensitive and quinolone sensitive Staphylococcus aureus and against methicillin resistant and quinolone resistant Staphylococcus aureus are 2 and 4 .mu.g/mL, resp., compared to 2 and 2 .mu.g/mL for the ref. compd. without the Me substituent. Compds. I showed a favorable

decreased MAO-A potency compared with analogs from the known art with C-5 side chains such as acetamidomethyl or unsubstituted azolymethyl or hydroxymethyl. They also showed favorable decreased MAO-A potency compared with analogs in which the HET group is unsubstituted. Fifty-seven example prepn. of intermediates and 44 example prepn. of I are included. For example, to prep. II, (5R)-3-[4-(1-oxo-3,6-dihydro-2H-thiopyran-4-yl)-3-fluorophenyl]-5-azidomethyloxazolidin-2-one (1.0 mmol; prepn. described) was mixed with 5,6,7,8-tetrachloro-2,9-dimethyl-1,4-dihydro-1,4-ethenonaphthalene (2.0 mmol) in dry 1,4-dioxane (4 mL) in a sealed microwave reaction tube. The tube was placed in a Smith microwave reactor at 170.degree. for 20 min. The reaction mixt. was then transferred into a round bottom flask and the solvent was removed under vacuum. The residue was purified by chromatog. on silica gel with 5% MeOH in CH₂Cl₂ to give a mixt. of the 4- and 5-Me regioisomers. This mixt. was further sepd. on a chiral column (chiralcel OD) with iso-PrOH/hexanes (1:1) to give II (74 mg).

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:927428 CAPLUS

DN 138:14010

TI Preparation of aryl-8-azabicyclo[3.2.1]octanes for the treatment of depression

IN Gilbert, Adam Matthew

PA Wyeth, John, and Brother Ltd., USA

SO PCT Int. Appl., 64 pp.

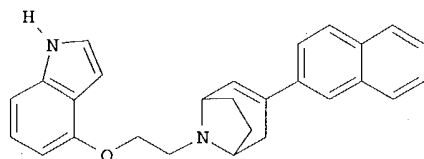
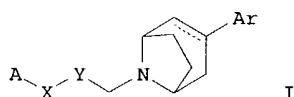
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2002096906 | A1 | 20021205 | WO 2002-US16008 | 20020520 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 2003032645 | A1 | 20030213 | US 2002-151210 | 20020520 |
| US 6632824 | B2 | 20031014 | | |
| PRAI US 2001-293563P | P | 20010525 | | |
| OS MARPAT 138:14010 | | | | |
| GI | | | | |



II

AB Title compds. I [X = NH, O or S; Y = (CH₂)_n where n = 0-3; A = (un)-substituted Ph or -pyridyl ring with addnl. possibility of being fused to an addnl. cycloalkyl or heterocyclic group using the ortho and meta positions; Ar = (un)substituted -indolyl, -Ph, -naphthyl, -anthracenyl, -phenanthrenyl, -benzyl, -benzofuryl, or -benzothienyl] are prepd. and disclosed as compds. for the treatment of depression. Thus, II was prepd. by N-alkylation of 3-naphththalen-2-yl-8-azabicyclo[3.2.1]oct-2-ene (prepn. given) with 4-(2-chloroethoxy)-1H-indole (prepn. given). I possessed IC₅₀ values (nM) in the range of 3.5-191.0 in binding assays with cells possessing the human 5-HT transporter. The invention also

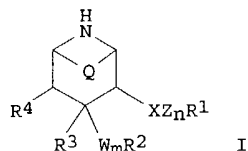
10/620559

includes formulations contg. these compds., and methods for making and using compds. of this invention.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:754196 CAPLUS
DN 137:257677
TI Methods of treating or preventing Alzheimer's disease using
4-aryl-3-alkoxy-piperidines and -azabicyclooctanes
IN Nieman, James A.; Fang, Lawrence; Jagodzinska, Barbara
PA Elan Pharmaceuticals, Inc., USA; Pharmacia & Upjohn Company
SO PCT Int. Appl., 449 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|--|-----------------|----------|
| PI | WO 2002076440 | A2 | 20021003 | WO 2002-US9100 | 20020321 |
| | WO 2002076440 | A3 | 20021128 | | |
| | W: | | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | |
| | RW: | | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | |
| PRAI | US 2001-278371P | P | 20010323 | | |
| | US 2001-308729P | P | 20010730 | | |
| OS | MARPAT 137:257677 | | | | |
| GI | | | | | |



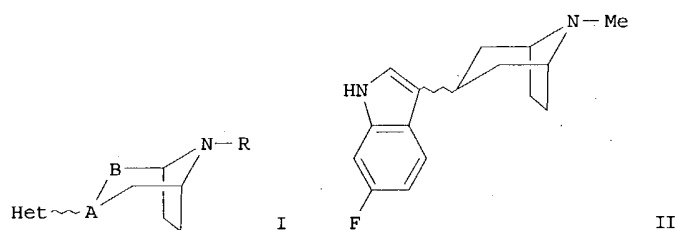
AB Disclosed are methods for treating or preventing Alzheimer's disease, and other diseases, and/or inhibiting .beta.-secretase enzyme, and/or inhibiting deposition of A beta peptide in a mammal, using 3,4-disubstituted piperidiny compounds. (I) wherein the variables R1, R2, R3, R4, Q, W, X, Z, m, and n are defined below. Although neither the compds. nor the methods of prepn. are claimed, .apprx.150 example prepn. translations from the German examples of patent WO 9709311, are included. I inhibit .beta.-secretase with IC50 < 50 .mu.M; compds. that are effective inhibitors of .beta.-secretase activity demonstrate reduced cleavage of the substrate as compared to a control. In I, R1 is aryl, heterocycle; R2 is Ph, naphthyl, acenaphthyl, cyclohexyl, pyridyl, pyrimidinyl, pyrazinyl, oxopyridinyl, diazinyl, triazolyl, thienyl, oxazolyl, oxadiazolyl, thiazolyl, pyrrolyl, or furyl, optionally substituted. R3 is: H, hydroxy, lower-alkoxy, or lower-alkenyloxy; R4 is: H, lower-alkyl, lower-alkenyl, lower-alkoxy, hydroxy-lower-alkyl, lower-alkoxy-lower-alkyl, benzyl, oxo, or where R3 and R4 together are a bond, or as specified in the claims. Q is: ethylene, or is absent; X is: a bond, -O-, -S-, -CH-R11- (R11 defined in claims), -CHOR9- (R9 defined in claims), -OCO-, -CO-, or C:NOR10- (R10 is carboxyalkyl, alkoxy-carbonylalkyl, alkyl or H), with the bond emanating from an O or S atom joining to a satd. C atom of group Z or to R1; W is: -O-, or -S-; Z is: lower-alkylene, lower-alkenylene, hydroxy-lower-alkylidene, -O-, -S-, -O-Alk- (Alk is a lower alkylene), -S-Alk-, -Alk-O-, or -Alk-S. N is: 1, or 0 or 1 when X is -O-CO-, and where m is 0 or 1; with provisos.

L10 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:811082 CAPLUS
DN 132:49887
TI Preparation of 3-(bicyclic-heteroaryl)-8-azabicyclo[3.2.1]oct-2-enes and -octanes for inhibition of serotonin reuptake
IN Audia, James Edmund; McDaniel, Stacey Leigh; Nissen, Jeffrey Scott

10/620559

PA Eli Lilly and Company, USA
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|--|----------|-----------------|----------|
| PI | WO 9965492 | A1 | 19991223 | WO 1999-US12602 | 19990604 |
| | W: | AE, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| | CA 2335336 | AA | 19991223 | CA 1999-2335336 | 19990604 |
| | AU 9948190 | A1 | 20000105 | AU 1999-48190 | 19990604 |
| | JP 2002518331 | T2 | 20020625 | JP 2000-554372 | 19990604 |
| | US 6107307 | A | 20000822 | US 1999-326924 | 19990607 |
| | EP 969005 | A1 | 20000105 | EP 1999-304680 | 19990616 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | |
| PRAI | US 1998-89951P | P | 19980619 | | |
| | WO 1999-US12602 | W | 19990604 | | |
| OS | MARPAT 132:49887 | | | | |
| GI | | | | | |



AB The invention provides 3-(bicyclic-heteroaryl)-8-azabicyclo[3.2.1]oct-2-enes and -octanes I, which are useful for the inhibition of serotonin reuptake in mammals [wherein A-B = C:CH or CHCH₂; R = H, or C1-C4 substituent; Het = bicyclic heteroaryl optionally substituted with 1-2 of H, halo, C1-C4 alkyl, C3-C6 cycloalkyl, C1-C4 alkoxy, cyano, nitro, carboxamido, CF₃, or OH; and pharmaceutically acceptable salts thereof]. The compds. are selective inhibitors of serotonin reuptake, and as such are useful as antidepressants, etc. Preps. of several compds. I and intermediates (some prophetic) are given. For instance, condensation of 6-fluoroindole with tropinone in AcOH in the presence of H₃PO₄, and hydrogenation of the resultant azabicyclooctene deriv., gave azabicyclooctane deriv. II. In a paroxetine binding assay, representative compds. I inhibited serotonin reuptake potently, with activity in some cases in the low nanomolar range (no addnl. data).

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:708819 CAPLUS
 DN 129:316150
 TI Preparation of bicyclic amine derivatives as pesticides
 IN Godfrey, Christopher Richard Ayles; Salmon, Roger; Russell, Charles Adam
 PA Zeneca Ltd., UK
 SO PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|--|----------|-----------------|----------|
| PI | WO 9846600 | A1 | 19981022 | WO 1998-GB693 | 19980304 |
| | W: | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
GA, GN, ML, MR, NE, SN, TD, TG

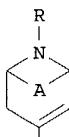
AU 9865077 A1 19981111 AU 1998-65077 19980304
EP 971918 A1 20000119 EP 1998-910848 19980304

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI

JP 2001521514 T2 20011106 JP 1998-543575 19980304
ZA 9802204 A 19980928 ZA 1998-2204 19980316

PRAI GB 1997-6222 A 19970326
WO 1998-GB693 W 19980304

OS MARPAT 129:316150
GI



AB The title compds. [I; A = WXCCYZ, XC:CY; Ar = (un)substituted Ph, (un)substituted 5- or 6-membered unsatd., (benzo-fused) heterocyclcyl with 1-3 N, O, S; R = H, CHO, cyano, (un)substituted C1-15 alkyl, aryl, aralkyl, (hetero)aryl, (aryl)alkenyl, etc., a proviso is given; W, X, Y, Z = H, OH, acyloxy, alkoxy, alkylsilyloxy, cyano, halo], useful as insecticides, acaricides and nematocides, were prepd. by dehydration of the parent aryl heterocyclcyl alcs. For example, adding a THF soln. of 8-(2,2,2-trifluoroethyl)-8-azabicyclo[3.2.1]octan-3-one to lithiated 3,5-dibromopyridine in THF at -78.degree. and stirring the mixt. for 2 h at -60.degree. gave exo-3-(5-bromopyrid-3-yl)-endo-3-hydroxy-8-(2,2,2-trifluoroethyl)-8-azabicyclo[3.2.1]octane. This was dissolved in CH₂Cl₂, stirred with Et₃N and MeSO₂Cl under N for 1 h at 0.degree. and allowed to react at ambient temp. for apprx.3 days to give a title compd. 3-(5-bromopyrid-3-yl)-8-(2,2,2-trifluoroethyl)-8-azabicyclo[3.2.1]oct-2-ene. The latter at 500 ppm gave 80-100% kill in a test against Tetranychus urticae. An emulsifiable conc., wettable powder, dusting powder, concd. liq., capsule suspension, aq. suspension conc. and H₂O-dispersible granule formulation contg. 3-(6-chloropyrid-3-yl)-8-methyl-8-azabicyclo[3.2.1]oct-2-ene were given.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:372147 CAPLUS

DN 126:343505

TI Preparation of 8-azabicyclo[3.2.1]oct-2-enes as serotonin reuptake inhibitors

IN Moldt, Peter; Scheel-Krueger, Joergen; Olsen, Gunnar M.; Nielsen, Elsebet Oestergaard

PA Neurosearch A/s, Den.; Moldt, Peter; Scheel-Krueger, Joergen; Olsen, Gunnar M.; Nielsen, Elsebet Oestergaard

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

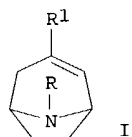
LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|--|----------|-----------------|----------|
| WO 9713770 | A1 | 19970417 | WO 1996-EP4449 | 19961011 |
| W: | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI | | | |
| CA 2233541 | AA | 19970417 | CA 1996-2233541 | 19961011 |
| CA 2233541 | C | 20020430 | | |
| AU 9672917 | A1 | 19970430 | AU 1996-72917 | 19961011 |
| AU 709327 | B2 | 19990826 | | |
| EP 859777 | A1 | 19980826 | EP 1996-934662 | 19961011 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI | | | |

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|----------------------|----|----------|----------------|----------|
| CN 1199400 | A | 19981118 | CN 1996-197566 | 19961011 |
| CN 1083840 | B | 20020501 | | |
| JP 10512589 | T2 | 19981202 | JP 1997-514726 | 19961011 |
| JP 3462505 | B2 | 20031105 | | |
| BR 9610960 | A | 19990302 | BR 1996-10960 | 19961011 |
| CZ 285093 | B6 | 19990512 | CZ 1998-758 | 19961011 |
| RU 2157372 | C2 | 20001010 | RU 1998-105169 | 19961011 |
| EE 3446 | B1 | 20010615 | EE 1998-62 | 19961011 |
| PL 185357 | B1 | 20030430 | PL 1996-326195 | 19961011 |
| SK 283425 | B6 | 20030701 | SK 1998-287 | 19961011 |
| NO 9800919 | A | 19980608 | NO 1998-919 | 19980303 |
| US 6100275 | A | 20000808 | US 1998-43294 | 19980518 |
| PRAT-DK 1995-1156 | A | 19951013 | | |
| WO 1996-EP4449 | W | 19961011 | | |
| OS MARPAT 126:343505 | | | | |
| GI | | | | |



AB Title compds. [I; R = H, (cyclo)alkyl, CH₂CH₂OH, etc.; R₁ = (un)substituted Ph, -naphthyl, -heteroaryl, etc.] were prepd. Thus, 8-methyl-8-azabicyclo[3.2.1]octan-3-one was condensed with 3,4-Cl₂C₆H₃Br and the product dehydrated to give I (R = Me, R₁ = C₆H₃Cl₂-3,4). Data for biol. activity of 1 prepd. I were given.

L10 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:307688 CAPLUS

DN 126:277402

TI New 4-aryl-3-aralkoxypiperidines and -azabicyclooctanes for treating heart and kidney insufficiency

IN Binggeli, Alfred; Breu, Volker; Bur, Daniel; Fischli, Walter; Gueller, Rolf; Hirth, Georges; Maerki, Hans-Peter; Mueller, Marcel; Oefner, Christian; Stadler, Heinz; Vieira, Eric; Wilhelm, Maurice; Wostl, Wolfgang

PA F. Hoffmann-La Roche Ag, Switz.

SO PCT Int. Appl., 492 pp.

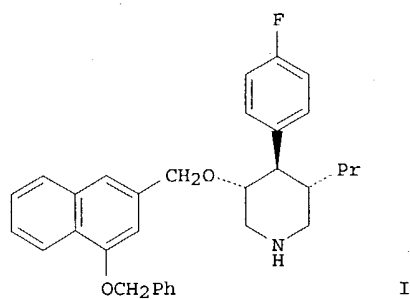
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|------------------|----------|
| PI | WO 9709311 | A1 | 19970313 | WO 1996-EP3803 | 19960829 |
| | W: AU, BR, CA, CN, CZ, HU, IL, JP, KR, MX, NO, NZ, PL, RU, SG, TR | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | CA 2230931 | AA | 19970313 | CA 1996-2230931 | 19960829 |
| | AU 9667432 | A1 | 19970327 | AU 1996-67432 | 19960829 |
| | AU 708616 | B2 | 19990805 | | |
| | EP 863875 | A1 | 19980916 | EP 1996-927715 | 19960829 |
| | EP 863875 | B1 | 20030604 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | CN 1202152 | A | 19981216 | CN 1996-197674 | 19960829 |
| | JP 11500447 | T2 | 19990112 | JP 1996-510837 | 19960829 |
| | BR 9610385 | A | 19990706 | BR 1996-10385 | 19960829 |
| | NZ 315677 | A | 20000228 | NZ 1996-315677 | 19960829 |
| | RU 2167865 | C2 | 20010527 | RU 1998-106388 | 19960829 |
| | AT 242213 | E | 20030615 | AT 1996-927715 | 19960829 |
| | CZ 292327 | B6 | 20030917 | CZ 1998-684 | 19960829 |
| | ZA 9607424 | A | 19970307 | ZA 1996-7424 | 19960902 |
| | TW 474932 | B | 20020201 | TW 1996-85110684 | 19960902 |
| | NO 9800954 | A | 19980428 | NO 1998-954 | 19980305 |
| | US 6051712 | A | 20000418 | US 1999-255185 | 19990222 |
| | US 6150526 | A | 20001121 | US 1999-456283 | 19991207 |
| PRAI | CH 1995-2548 | A | 19950907 | | |
| | CH 1996-1876 | A | 19960726 | | |
| | WO 1996-EP3803 | W | 19960829 | | |
| | US 1996-711339 | A3 | 19960906 | | |
| | US 1999-255185 | A1 | 19990222 | | |
| OS | MARPAT 126:277402 | | | | |
| GI | | | | | |



AB New piperidine and azabicyclooctane derivs. (> 1000 compds.) are renin inhibitors for treatment of high blood pressure, heart and kidney insufficiency. Thus, the piperidine deriv. I was prepd. from 1-benzyl-3-propyl-4-piperidinone by reaction with 4-FC₆H₄Br, followed by 1-benzyloxy-3-chloromethylnaphthalene and deblocking. I had a renin-inhibiting IC₅₀ of 0.317 μ M.